JULY 1979
No. 7

FISHING INFORMATION

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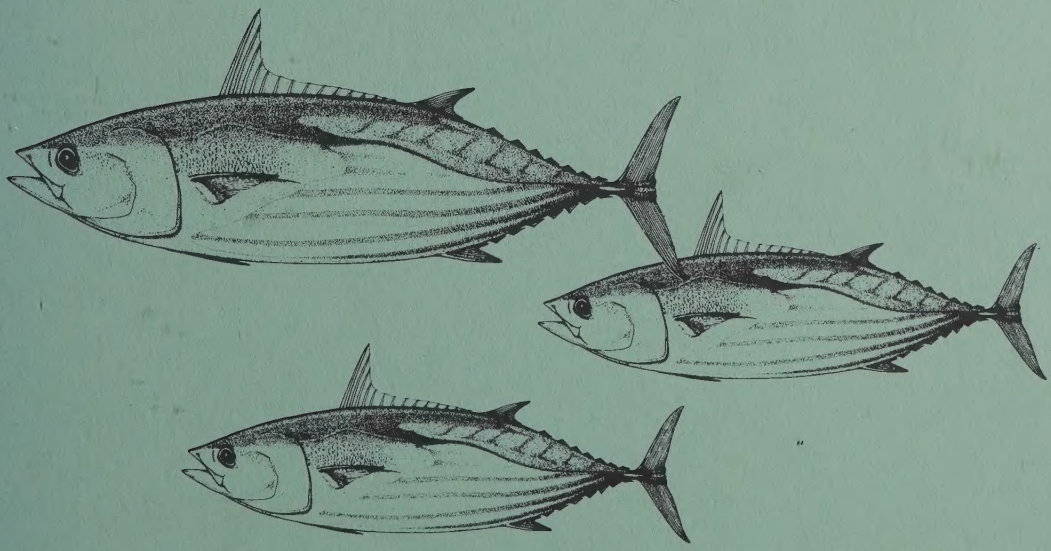

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FISHING INFORMATION

JULY 1979, No. 7

EDITOR: JAMES A. RENNER

I. Barrett, Director, SOUTHWEST FISHERIES CENTER
J. Carr, Deputy Director

PREFACE

This publication, Fishing Information, appears monthly and contains 1) fishery advisory information, 2) a narrative description of pertinent surface temperature conditions, 3) charts of winds and pressures for the eastern North Pacific, 4) charts of sea surface temperature for the North Pacific and eastern tropical Pacific, and 5) charts of subsurface temperature structure in the eastern North Pacific.

A supplement to Fishing Information appears at 15-day intervals throughout the year. It contains a chart of sea surface temperature (contoured at 2°F (1°C) intervals) from Baja California to Vancouver Island out to about 135°W. Special bulletins are published in conjunction with the 15-day sea surface temperature charts which include short-term projections of albacore distribution and locations of productive fishing areas, information on oceanographic and atmospheric conditions, and other information as is appropriate during the albacore fishing season.

To cancel delivery of this publication in the event you no longer need to receive it, or to change the delivery address if you are moving but still need to receive it, please notify us by writing: James A. Renner, Editor, Fishing Information, National Marine Fisheries Service, Southwest Fisheries Center, P.O. Box 271, La Jolla, California 92038.

Submitted for publication - September 7, 1979

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ENVIRONMENTAL CHARTS ANALYZED BY:

F. Miller (Figures 8 and 9)
J. Renner (Figures 1, 2, 3, 4, 5, 6, 7, and 15 day supplement)

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Fisheries Research Board of Canada, Pacific Environment Institute, West Vancouver, British Columbia by L. F. Giovando from observations by:
J. Redhead at Langara Island Light; D. Geiger at Cape St. James Light;
L. Collins at Kains Island Light; M. V. Stewart at
Amphitrite Point Light

Scripps Institution of Oceanography, La Jolla, California

Expendable bathythermograph and salinity observations are made by the mates and engineers of the *Maunawili* of the Matson Navigation Co. The data are processed under supervision of D. R. McLain at the NMFS Pacific Environmental Group, Monterey, California, using computer facilities of the Fleet Numerical Weather Central, Monterey. The project is partially supported by the National Science Foundation and the Office of Naval Research.

Sea Surface Temperature and Environmental Conditions

Forrest R. Miller

Eastern North Pacific

During July the eastern Pacific high pressure system is normally centered near 38°N, 150°W and the Aleutian low center is located near 55°N, 175°W (Figure 1). Sea surface temperatures (SST's) normally increase over most of the north Pacific in response to increased solar heating. However, along part of the U.S. west coast strong northerly surface winds usually persist, and SST's decrease where winds induce coastal upwelling and offshore ocean mixing. During July 1979 the eastern Pacific high pressure system was centered near 35°N, 150°W (Figure 2). A weak ridge of high pressure extended from the center northeastward over British Columbia. The Aleutian low was mostly divided, with one center near 55°N and west of 180° and the other center in the Gulf of Alaska near 140°W. Most of the north Pacific weather centers moved into Alaska and northwest Canada along the northern periphery of the high pressure system. Along the U.S. west coast from 33°N to 43°N and west of 123°W, surface winds were strong when the high pressure system frequently intensified and strengthened the east-west pressure gradient. Low pressure dominated the western states south of 40°N. Thus, the eastern Pacific weather pattern was more characteristic of June than July.

During July 1979 the SST pattern (Figure 3) reflected the usual seasonal heating; but, as in June 1979, the north Pacific ocean front was weaker than usual east of 155°W. The large area of SST's more than 1°C below normal west of 145°W from 30°N to 42°N (Figure 5) developed in June 1979 south of 40°N along the western boundary of an extensive eastern Pacific high pressure system which strongly influenced ocean and weather conditions south of 45°N. The negative departures in the central Pacific resulted from wind mixing in the upper ocean layer along the paths of storm centers (40°N to 50°N), and weather fronts which trailed southwestward from the storm centers. Positive SST departures more than 1°C from normal developed north of the main storm paths in part of the north Pacific frequently under the influence of high pressure and lighter-than-normal winds. East of 140°W, SST's warmed at above normal rates in areas dominated by the high pressure system except around 23°N, 130°W and off the U.S. west coast where surface winds along the eastern boundary of the high were 2-4 knots stronger than normal. SST's were 1 to 2°C higher in July 1979 than a year ago (Figure 7) in all areas, including the west coast, where high pressure and weaker surface winds prevailed in July 1979. Along the western and southeastern periphery of the high pressure system wind mixing produced lower SST's in July 1979 than in July 1978. Apparently, coastal upwelling was not as well developed in July 1979, especially north of 35°N. Fishermen did not find persistent and well-organized ocean fronts (usually associated with upwelling) in the traditional albacore fishing grounds in July.

Western North Pacific

Over most of the western Pacific, except north of 30°N and west of 165°E, the subtropical high pressure system influenced ocean conditions during July 1979. From the coast of Japan to 165°E, storm centers developed frequently and moved eastward between 35°N and 45°N. As a result, a pattern of negative SST departures developed north of 35°N where winds mixed the ocean around the storm areas (Figure 6). Some areas of above-normal SST's developed north of 40°N and east of 165°E, where pressures were above normal over and south of the Aleutian Islands. SST's were more than 1°C above normal along the west coast of Honshu, Japan. The north Pacific ocean front remained very strong from 40°N to 45°N, especially west of 155°E where the Kuroshio Current and southerly winds apparently advected warmer waters northward along Japan (Figure 4). Storm generation along 40°N with associated wind mixing of the ocean south of 40°N aided in maintaining a strong ocean front north of 40°N between 165°E and 170°W.

Eastern Tropical Pacific

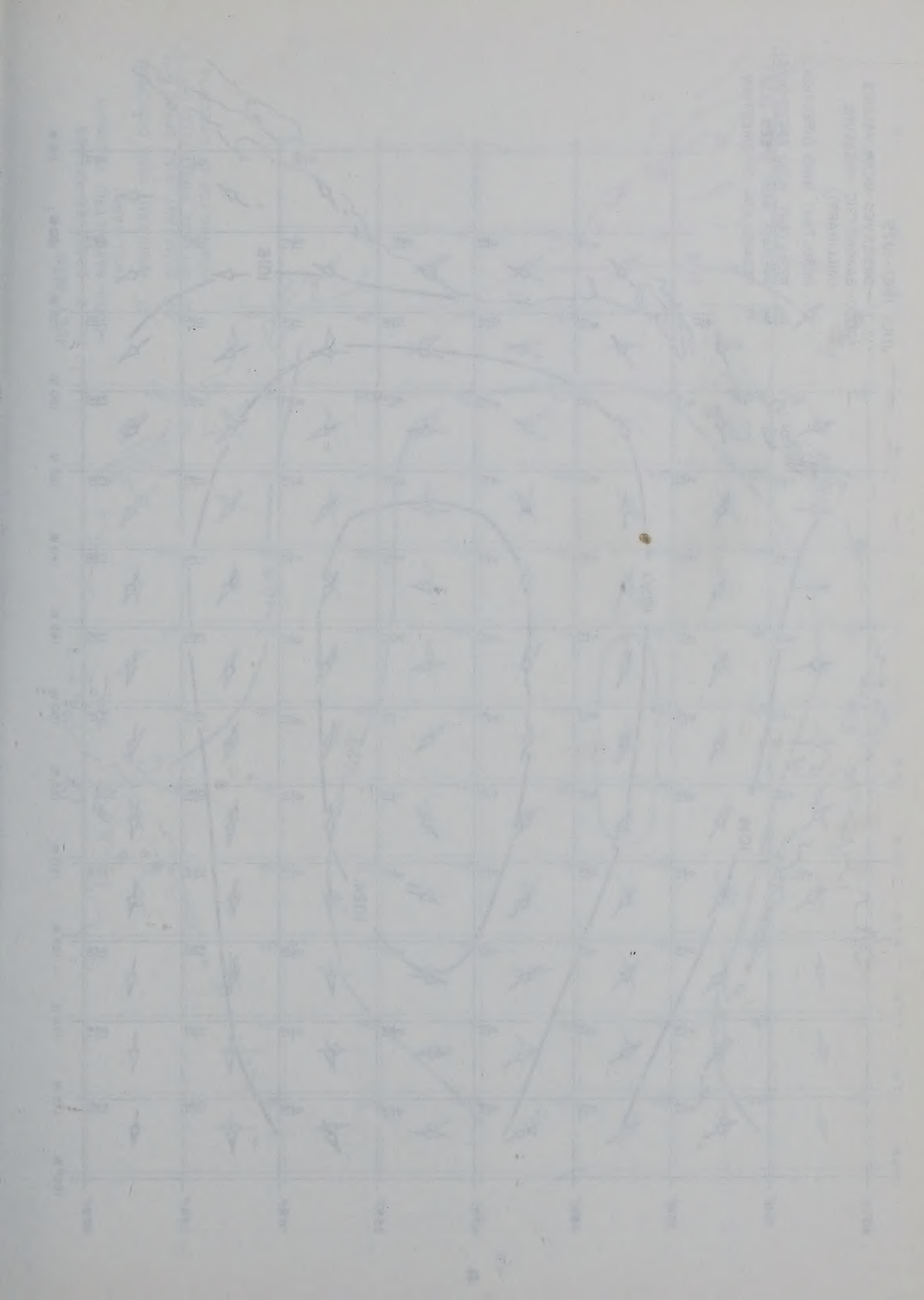
From June through July, SST's normally increase 1 to 2°C along the southwest coast of Baja California. From 5°N to 15°N between 90°W and 110°W some cooling normally takes place along the paths of tropical storms which form in this area. Normally, two to four tropical storms form each July over warm water in the fishing grounds east of 110°W and two of these tropical storms, with maximum winds over 34 knots, become hurricanes. In the southern hemisphere, SST's normally decrease 1 to 2°C in the Peru Current north of 20°S and along the equator east of 115°W. Elsewhere over the eastern tropical Pacific, SST's normally change less than 1°C in July.

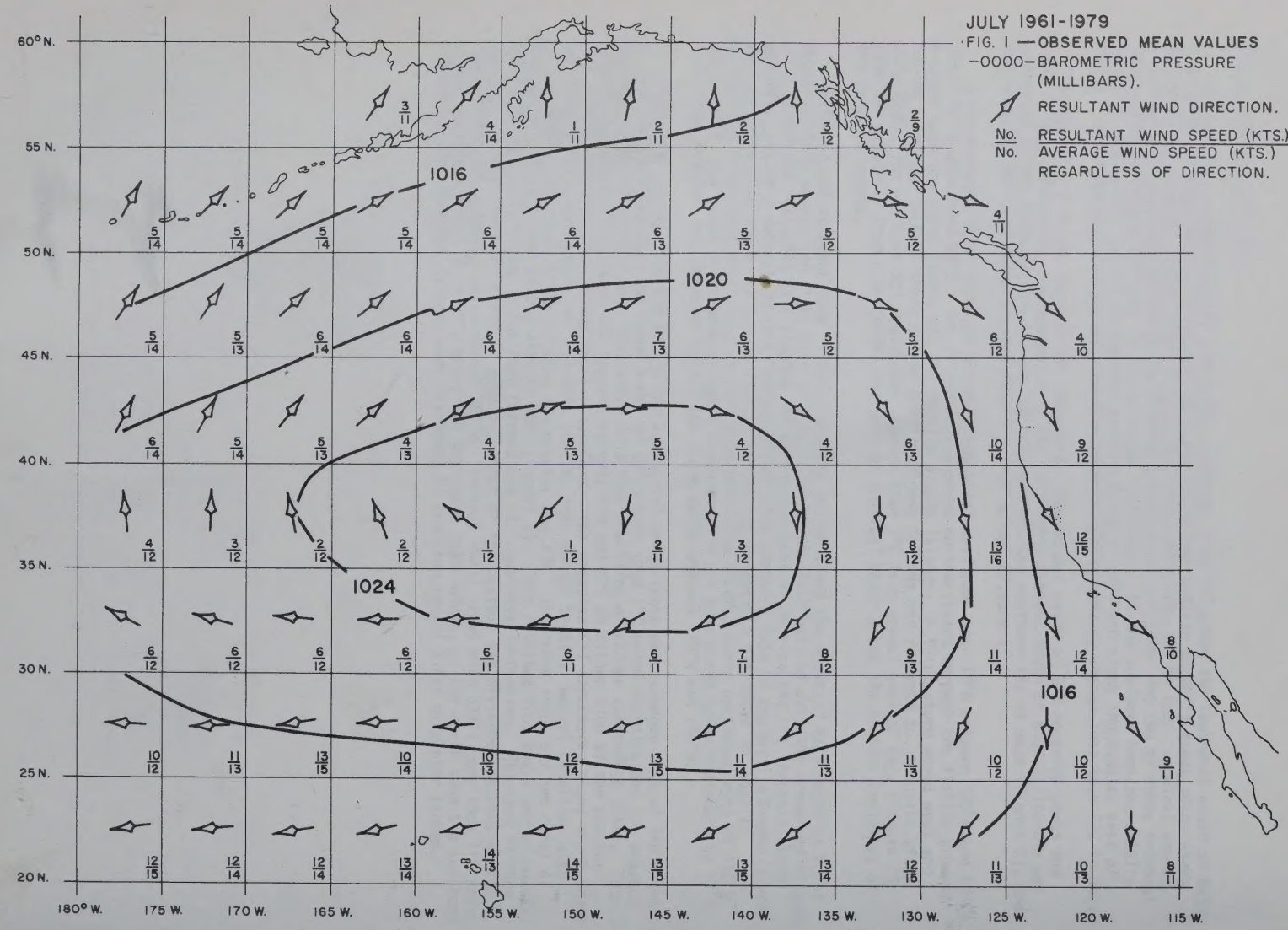
During July 1979 the largest SST departures from normal north of 5°N occurred south and west of Baja California. An extension of the California Current south of Baja California was reflected in the close packing of the SST contours off the southern tip of Baja (Figure 8), and the negative SST departures greater than 1°C from normal (Figure 9).

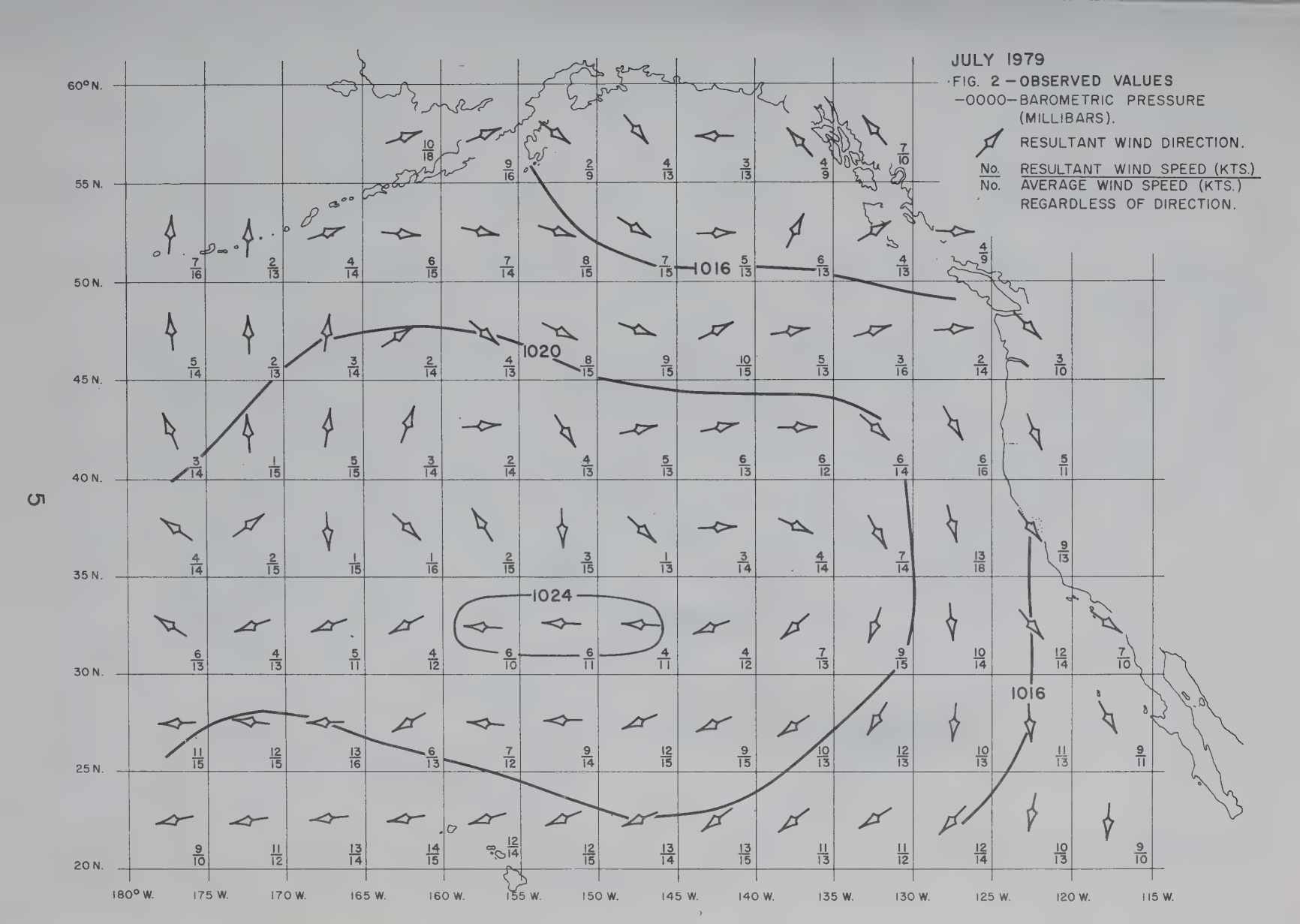
After mid-July, three tropical storms (Chubascos) developed near 10°N between 100°W and 110°W, where SST's were over 29°C. Two of the storms moved northwestward through the fishing grounds between Cape San Lucas (Baja) and the Revilla Gigedo Islands. A third storm moved west and became hurricane DELORES south of the Revilla Gigedo Islands and recurved to the north after July 20th. The positive SST departures greater than 1°C from normal west of Baja (Figure 9) resulted primarily from a northward movement of tropical water along the eastern periphery of the tropical storms.

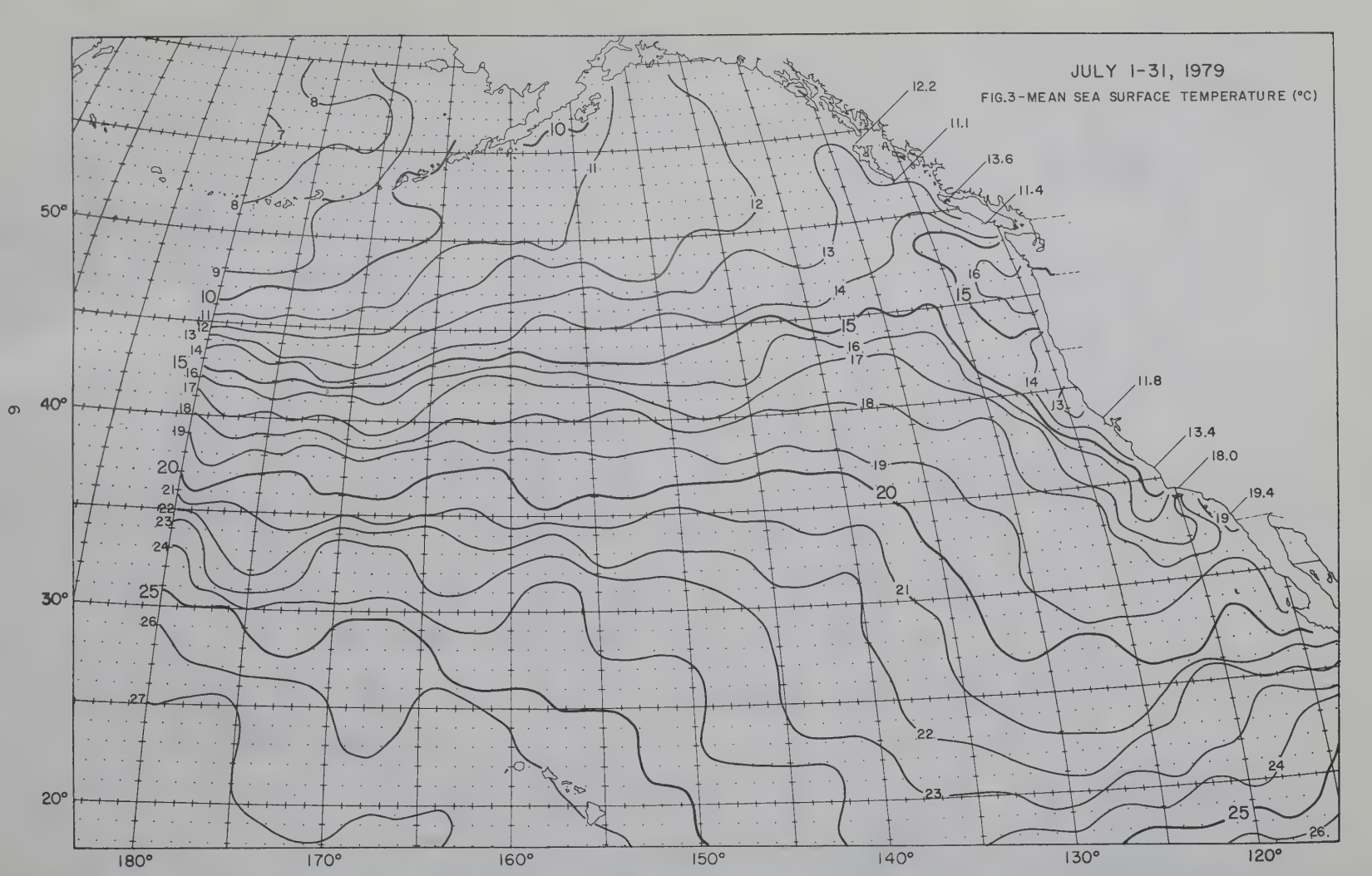
Yellowfin and skipjack tuna fishing was very active along the coast of Baja south of Point Eugenia (28°N) during the first half of July. During the last half of July, the announced closure of unrestricted yellowfin tuna fishing off Mexico and Central America, and the tropical storm activity, caused a decrease in tuna fishing effort from northern Baja to the Revilla Gigedo Islands. West of 120°W from 8°N to 12°N, tuna fishing effort was frequently disrupted by squally weather and rough seas until late in July when hurricane DELORES moved northward west of 120°W. As a result, the trade winds were weakened north of 15°N and tuna boats moved northward to 17°N where the weather had improved behind the storm paths between 110°W and 130°W.

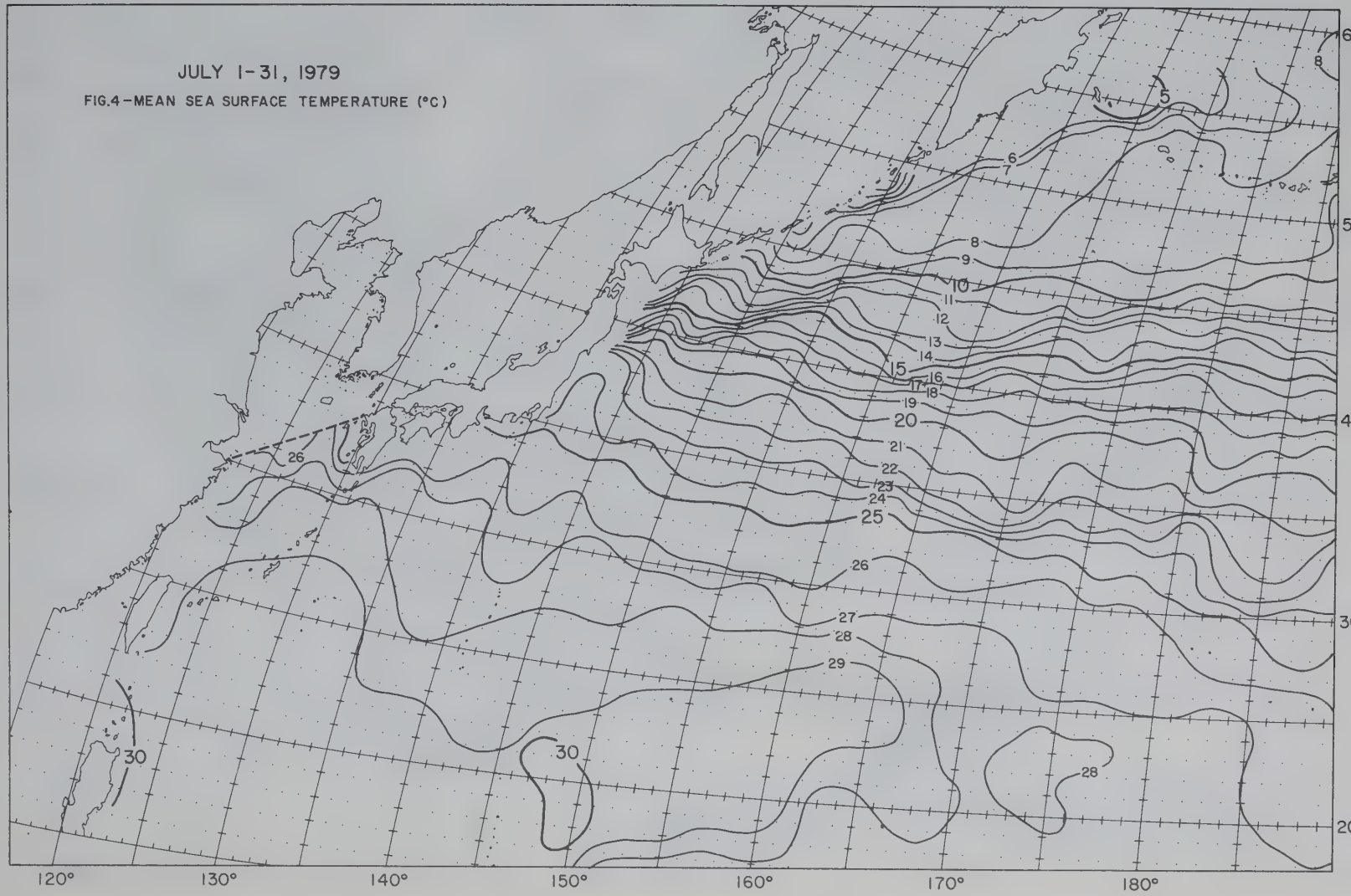
Along the equator from 5°N to 5°S the equatorial ocean front was stronger east of 140°W than in June 1979 (Figure 8). The large areas of SST's more than 1°C below normal along the equator between 150°W and Ecuador were indicative of active upwelling of colder subsurface water. The alternating areas of positive SST departures near 5°N and 5°S on either side of the equator reflected intensification of the frontal boundary. The negative SST departures along the equator were typical of a developing anti-El Niño (colder than normal tropical water) condition with strong equatorial ocean fronts between the equator and 3°N. The ocean front off the coast of Ecuador (5°S to 2°N) was strong also in July (Figure 8). This resulted from above normal coastal upwelling and ocean mixing in the Peru Current and its equatorial extension. Skipjack fishing improved in July along the coast of Ecuador. Most of the coastal and offshore branches of the Peru Current had slightly below normal SST's. Several small areas with SST's more than 1°C above normal persisted from 5°S to 10°S where the southeast trade winds, on the north side the southern hemisphere high pressure system, were disrupted by trailing squall lines of winter storms.




JULY 1961-1979
FIG. 1 —OBSERVED MEAN VALUES
—0000— BAROMETRIC PRESSURE (MILLIBARS).
RESULTANT WIND DIRECTION.
No. RESULTANT WIND SPEED (KTS.)
No. AVERAGE WIND SPEED (KTS.) REGARDLESS OF DIRECTION.
1016
1020
1024
1016
60° N.
55 N.
50 N.
45 N.
40 N.
35 N.
30 N.
25 N.
20 N.
180° W.
175 W.
170 W.
165 W.
160 W.
155 W.
150 W.
145 W.
140 W.
135 W.
130 W.
125 W.
120 W.
115 W.


JULY 1979
FIG. 2 — OBSERVED VALUES
-0000- BAROMETRIC PRESSURE (MILLIBARS).
RESULTANT WIND DIRECTION.
No. RESULTANT WIND SPEED (KTS.)
No. AVERAGE WIND SPEED (KTS.) REGARDLESS OF DIRECTION.
1016
1020
1024
1016
60° N.
55 N.
50 N.
45 N.
40 N.
35 N.
30 N.
25 N.
20 N.
180° W.
175 W.
170 W.
165 W.
160 W.
155 W.
150 W.
145 W.
140 W.
135 W.
130 W.
125 W.
120 W.
115 W.


JULY 1-31, 1979
FIG.3-MEAN SEA SURFACE TEMPERATURE (°C)
50°
40°
30°
20°
180°
170°
160°
150°
140°
130°
120°
12.2
11.1
13.6
11.4
11.8
13.4
18.0
19.4


JULY 1-31, 1979
FIG.4-MEAN SEA SURFACE TEMPERATURE (°C)
60°
50°
40°
30°
20°
120°
130°
140°
150°
160°
170°
180°
5
6
7
8
9
10
11
12
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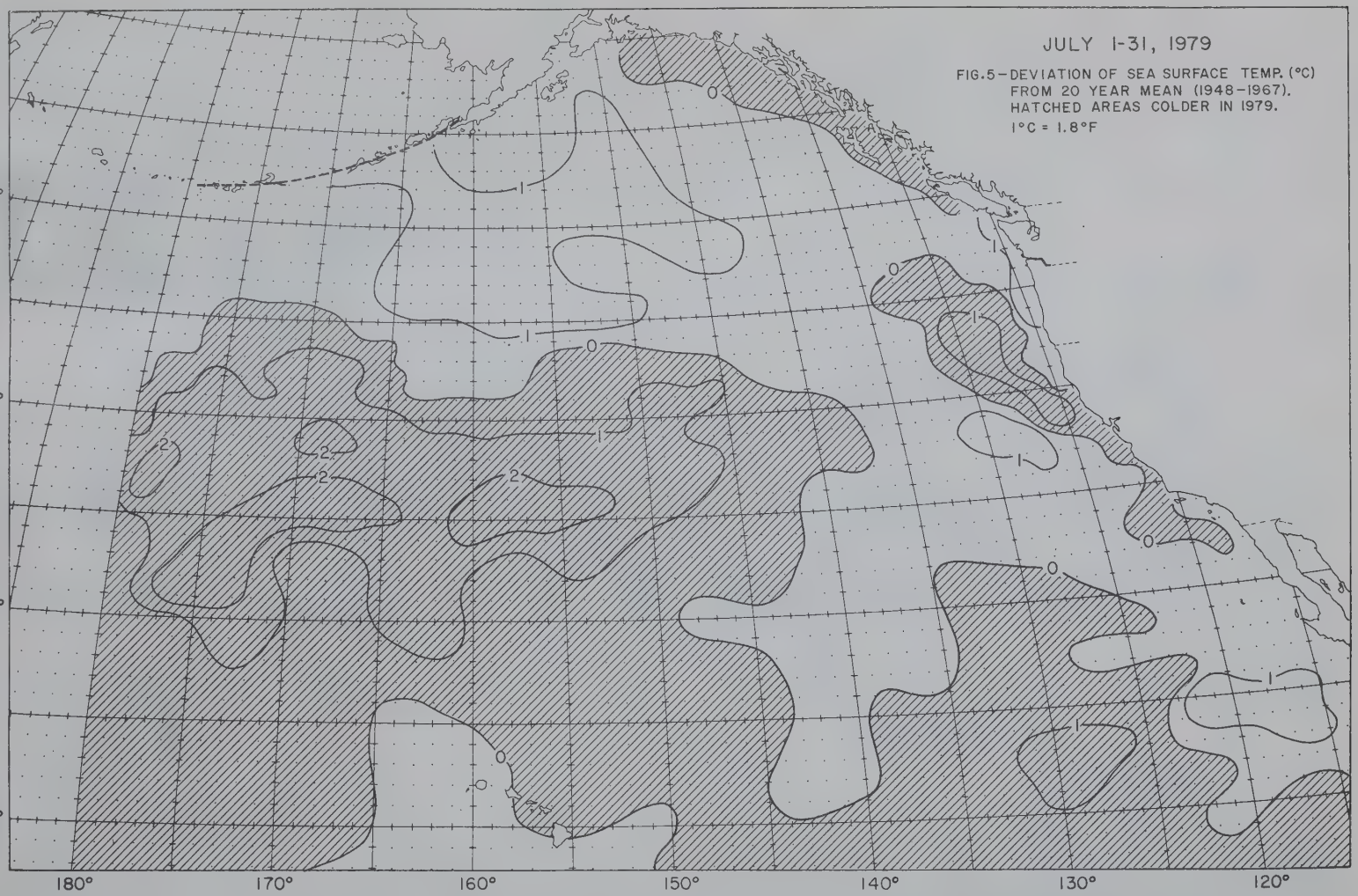
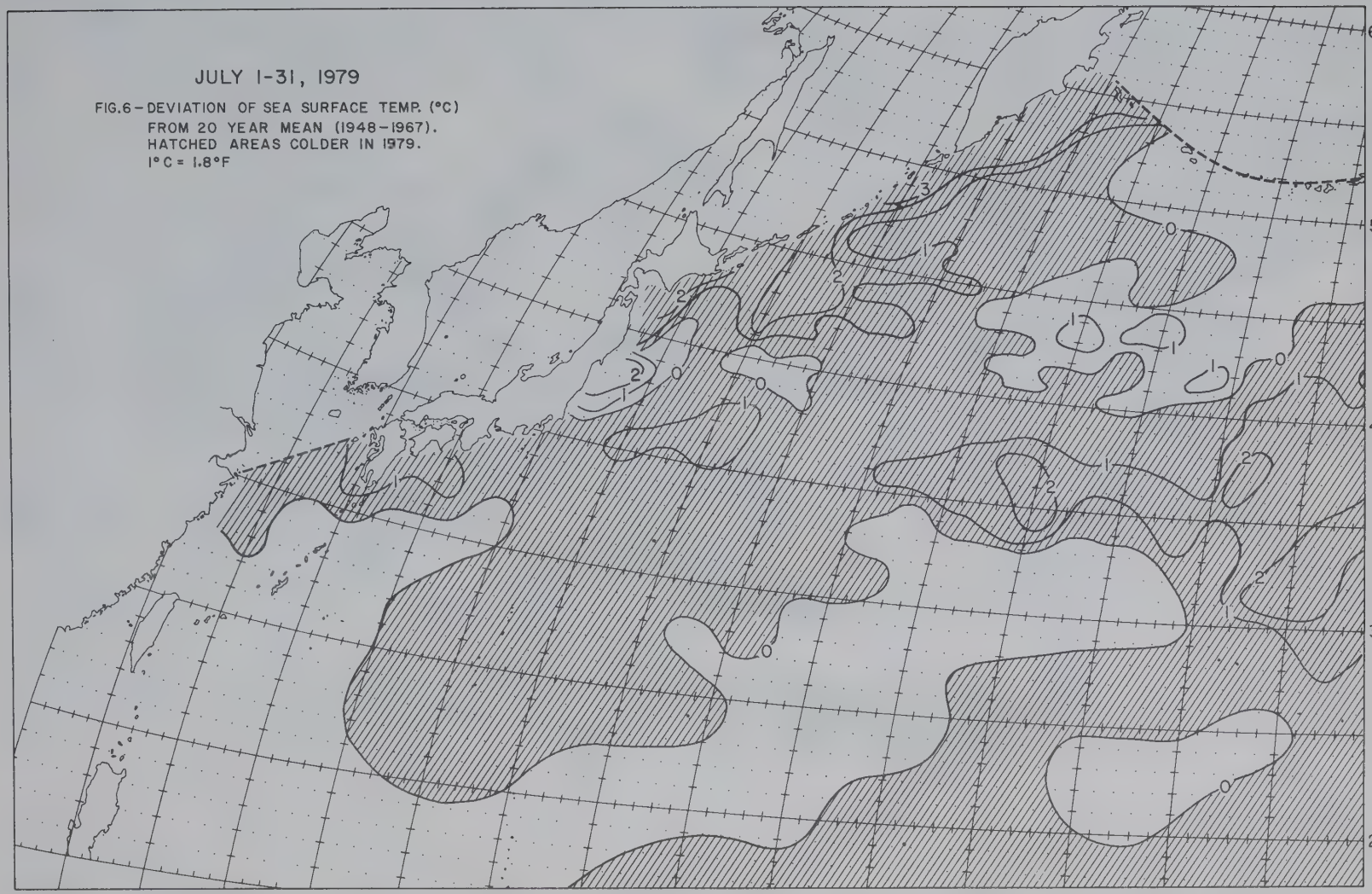
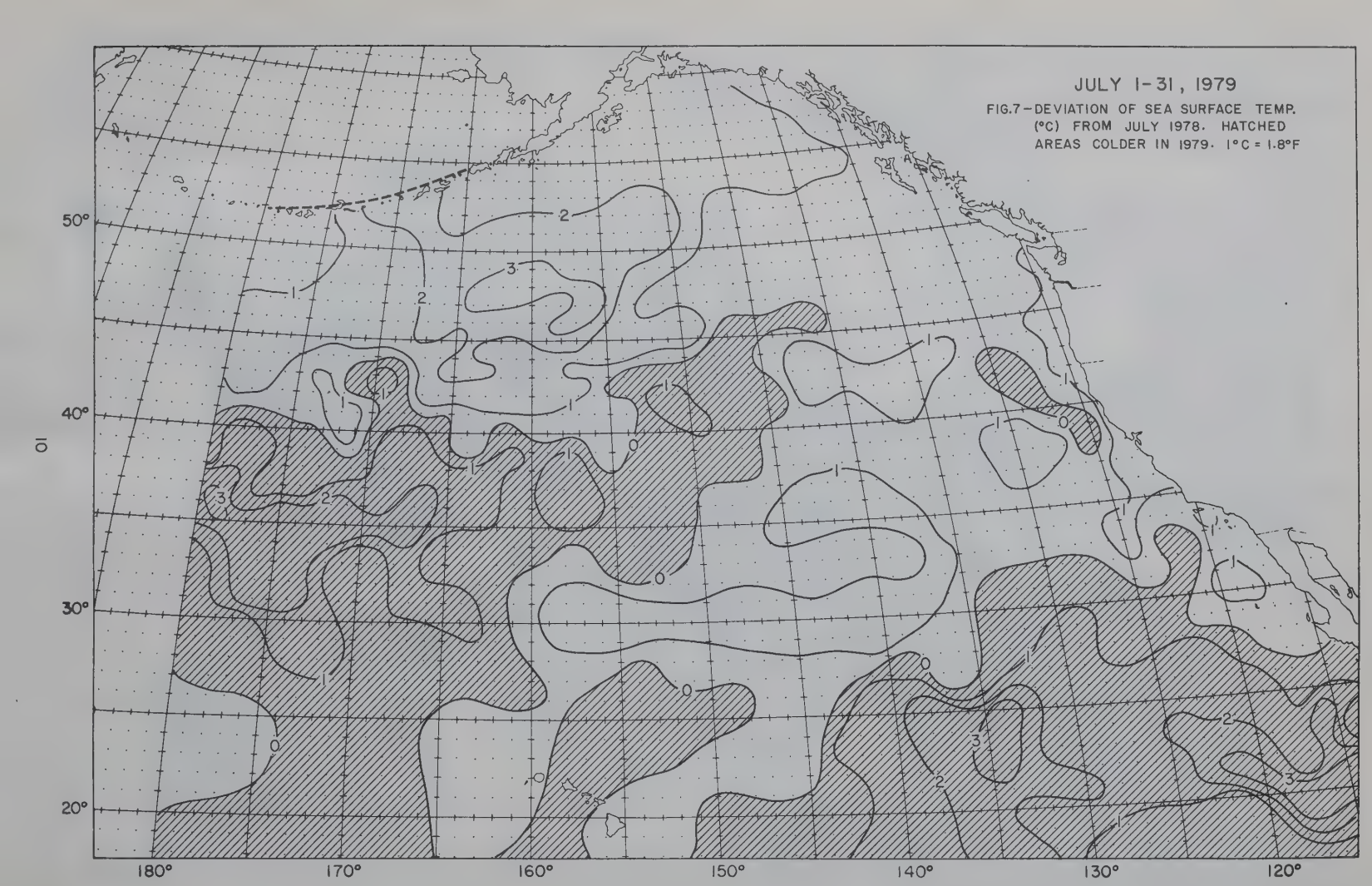
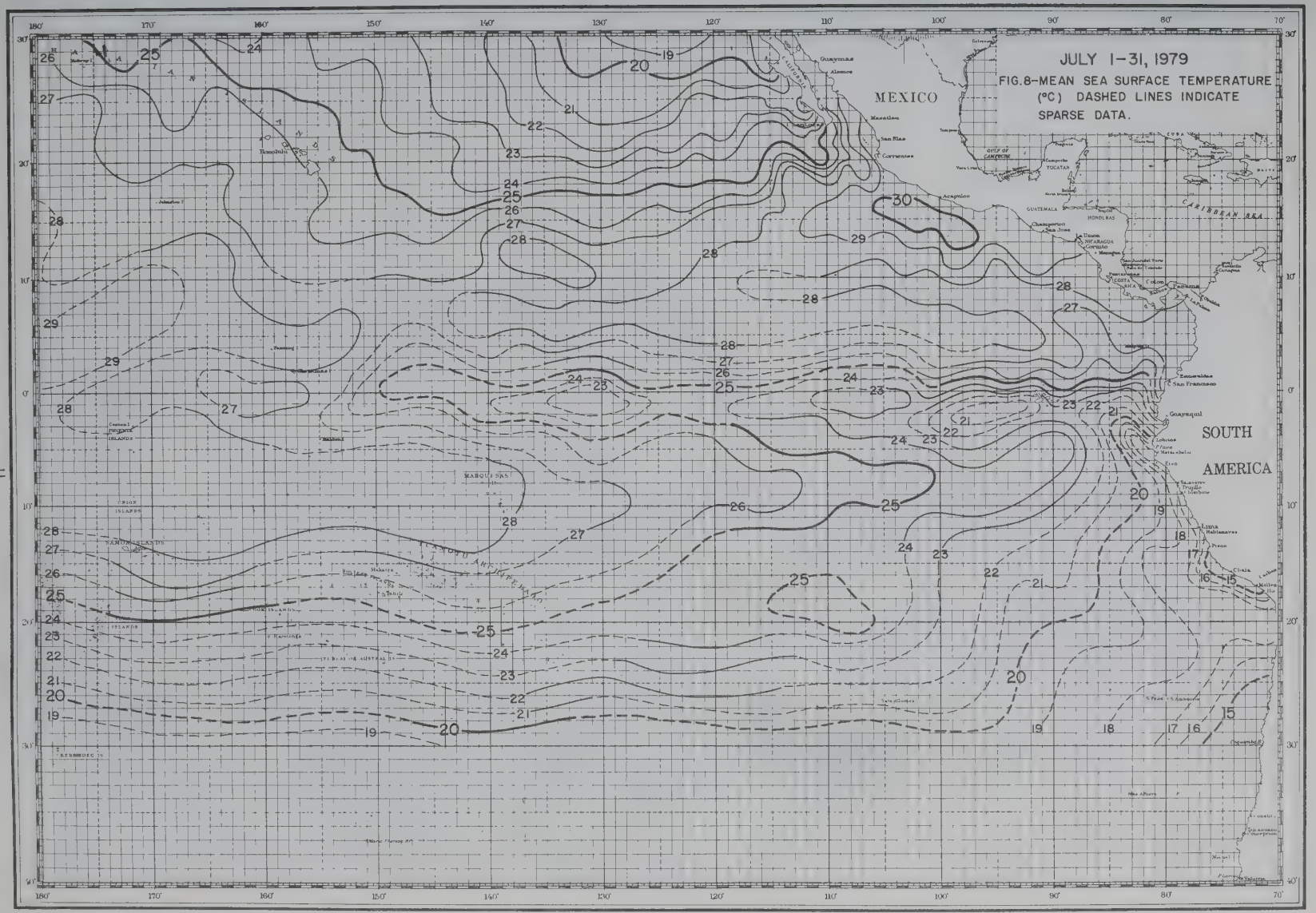

JULY 1-31, 1979
FIG.5-DEVIATION OF SEA SURFACE TEMP. (°C) FROM 20 YEAR MEAN (1948-1967). HATCHED AREAS COLDER IN 1979.
1°C = 1.8°F
50°
40°
30°
20°
180°
170°
160°
150°
140°
130°
120°


JULY 1-31, 1979
FIG.6 - DEVIATION OF SEA SURFACE TEMP. (°C)
FROM 20 YEAR MEAN (1948-1967).
HATCHED AREAS COLDER IN 1979.
1°C = 1.8°F
60°
50°
40°
30°
20°
120°
130°
140°
150°
160°
170°
180°


JULY 1-31, 1979
FIG.7-DEVIATION OF SEA SURFACE TEMP. (°C) FROM JULY 1978. HATCHED AREAS COLDER IN 1979. 1°C = 1.8°F
50°
40°
30°
20°
180°
170°
160°
150°
140°
130°
120°


JULY 1-31, 1979
FIG.8-MEAN SEA SURFACE TEMPERATURE (°C) DASHED LINES INDICATE SPARSE DATA.
MEXICO
SOUTH AMERICA
CARIBBEAN SEA
GULF OF CALIFORNIA
GUATEMALA
HONDURAS
NICARAGUA
COSTA RICA
PANAMA
COLOMBIA
ECUADOR
PERU
Honolulu
Acapulco
Guayaquil
Lima
Callao
MARQUESAS
Tahiti
Easter I.
Galapagos Is.
Cocos I.
Clipperton I.
Revillagigedo Is.
Line Islands
Phoenix Islands
Samoa Islands
Tuamotu Archipelago
Society Islands
Austral Is.
Cook Is.
Tonga Is.
Fiji Is.
Kermadec Is.
Juan Fernandez Is.
Chatham Is.
Mas Afuera
Mas a Tierra
Valparaiso
Concepcion
Chiloe
Malpelo I.
Cocos Is.
Coiba I.
Pearl Is.
Taboga I.
Taboguilla I.
Perlas Is.
Coronado Is.
Cedros I.
Guadalupe I.
Socorro I.
Clarion I.
Roca Partida
Johnston I.
Palmyra I.
Jarvis I.
Howland I.
Baker I.
Canton I.
Enderbury I.
Christmas I.
Fanning I.
Penrhyn I.
Pukapuka
Rakahanga
Manihiki
Suwarrow I.
Nassau I.
Samoa
Tutuila
Manua
Rose I.
Swains I.
Niue I.
Aitutaki
Rarotonga
Mangaia
Tubuai
Rapa
Raivavae
Rimatara
Rurutu
Tahuata
Hiva Oa
Nuku Hiva
Ua Huka
Ua Pou
Fatu Hiva
Makatea
Raroia
Tahanea
Fakarava
Kauehi
Aratika
Takaroa
Takapoto
Manihi
Ahe
Rangiroa
Arutua
Apataki
Makemo
Hao
Reao
Pukarua
Pinaki
Hikueru
Marutea
Nukutavake
Vahitahi
Tureia
Mangareva
Pitcairn I.
Henderson I.
Ducie I.
Oeno I.
Gambier Is.
Tuamotu Archipelago
Society Islands
Austral Is.
Cook Is.
Tonga Is.
Fiji Is.
Kermadec Is.
Juan Fernandez Is.
Chatham Is.
Mas Afuera
Mas a Tierra
Valparaiso
Concepcion
Chiloe
Malpelo I.
Cocos Is.
Coiba I.
Pearl Is.
Taboga I.
Taboguilla I.
Perlas Is.
Coronado Is.
Cedros I.
Guadalupe I.
Socorro I.
Clarion I.
Roca Partida
Johnston I.
Palmyra I.
Jarvis I.
Howland I.
Baker I.
Canton I.
Enderbury I.
Christmas I.
Fanning I.
Penrhyn I.
Pukapuka
Rakahanga
Manihiki
Suwarrow I.
Nassau I.
Samoa
Tutuila
Manua
Rose I.
Swains I.
Niue I.
Aitutaki
Rarotonga
Mangaia
Tubuai
Rapa
Raivavae
Rimatara
Rurutu
Tahuata
Hiva Oa
Nuku Hiva
Ua Huka
Ua Pou
Fatu Hiva
Makatea
Raroia
Tahanea
Fakarava
Kauehi
Aratika
Takaroa
Takapoto
Manihi
Ahe
Rangiroa
Arutua
Apataki
Makemo
Hao
Reao
Pukarua
Pinaki
Hikueru
Marutea
Nukutavake
Vahitahi
Tureia
Mangareva
Pitcairn I.
Henderson I.
Ducie I.
Oeno I.
Gambier Is.

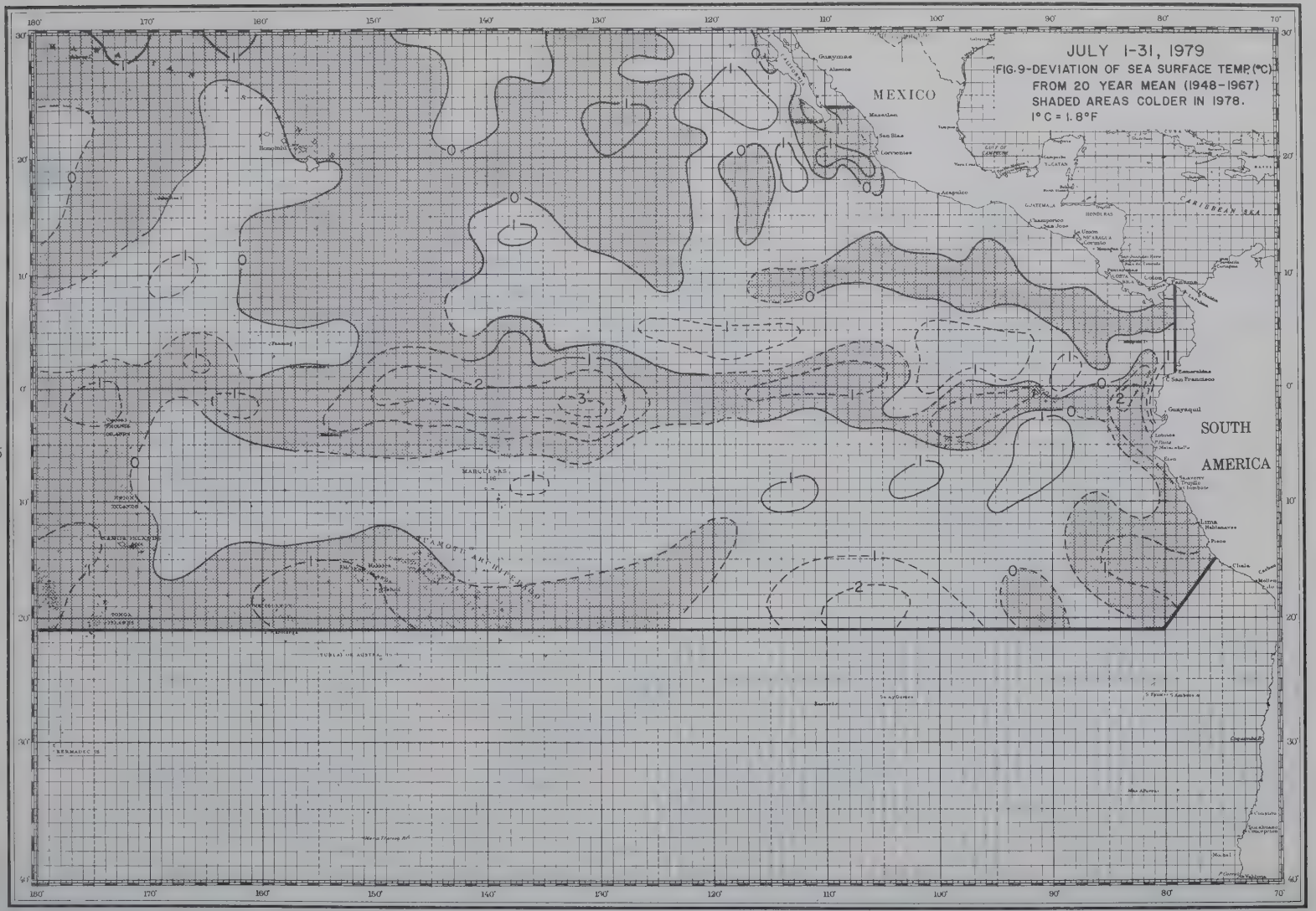

JULY 1-31, 1979
FIG. 9-DEVIATION OF SEA SURFACE TEMP. (°C) FROM 20 YEAR MEAN (1948-1967)
SHADED AREAS COLDER IN 1978.
1° C = 1.8°F
MEXICO
SOUTH AMERICA
CARIBBEAN SEA
HONDURAS
NICARAGUA
GUATEMALA
CUBA
Acapulco
Manzanillo
San Blas
Corrientes
Guaymas
Alamos
Mazatlan
Guayaquil
Lima
San Francisco
Callao
Salaverry
Pisco
Chala
Arica
Iquique
Tocopilla
Antofagasta
Coquimbo
Valparaiso
Mocha
Juan Fernandez Is.
Easter Is.
Galapagos Is.
Marquesas Is.
Tuamotu Archipelago
Society Is.
Tonga Is.
Fiji Is.
Samoa Is.
Bermuda Is.
Tubuai Is.
Austral Is.
Cook Is.
Tahiti
Raiatea
Bora Bora
Rarotonga
Pago Pago
Apia
Suva
Nandi
Honolulu
Hilo
Kahului
Lihue
Midway Is.
Johnston Is.
Palmyra Is.
Christmas Is.
Canton Is.
Enderbury Is.
Funafuti
Nukufetau
Nukulaelae
Nanumea
Nanumanga
Niutao
Nui
Vaitupu
Nukufetau
Funafuti

FIGURE 10

SHIP MAUNAWILI

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05 JUL 1979 - 12 JUL 1979

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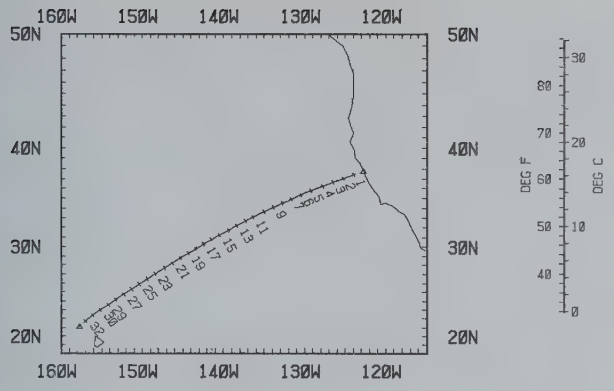

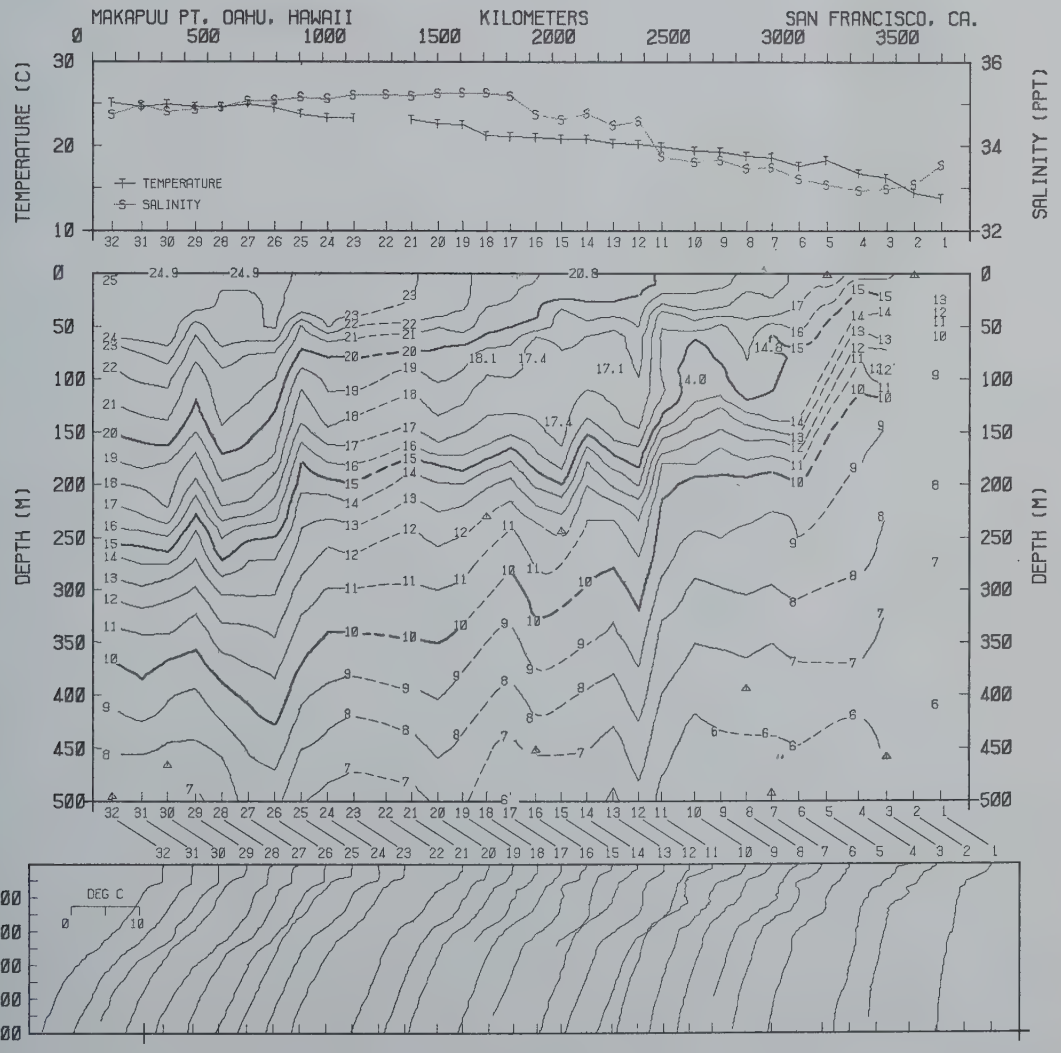

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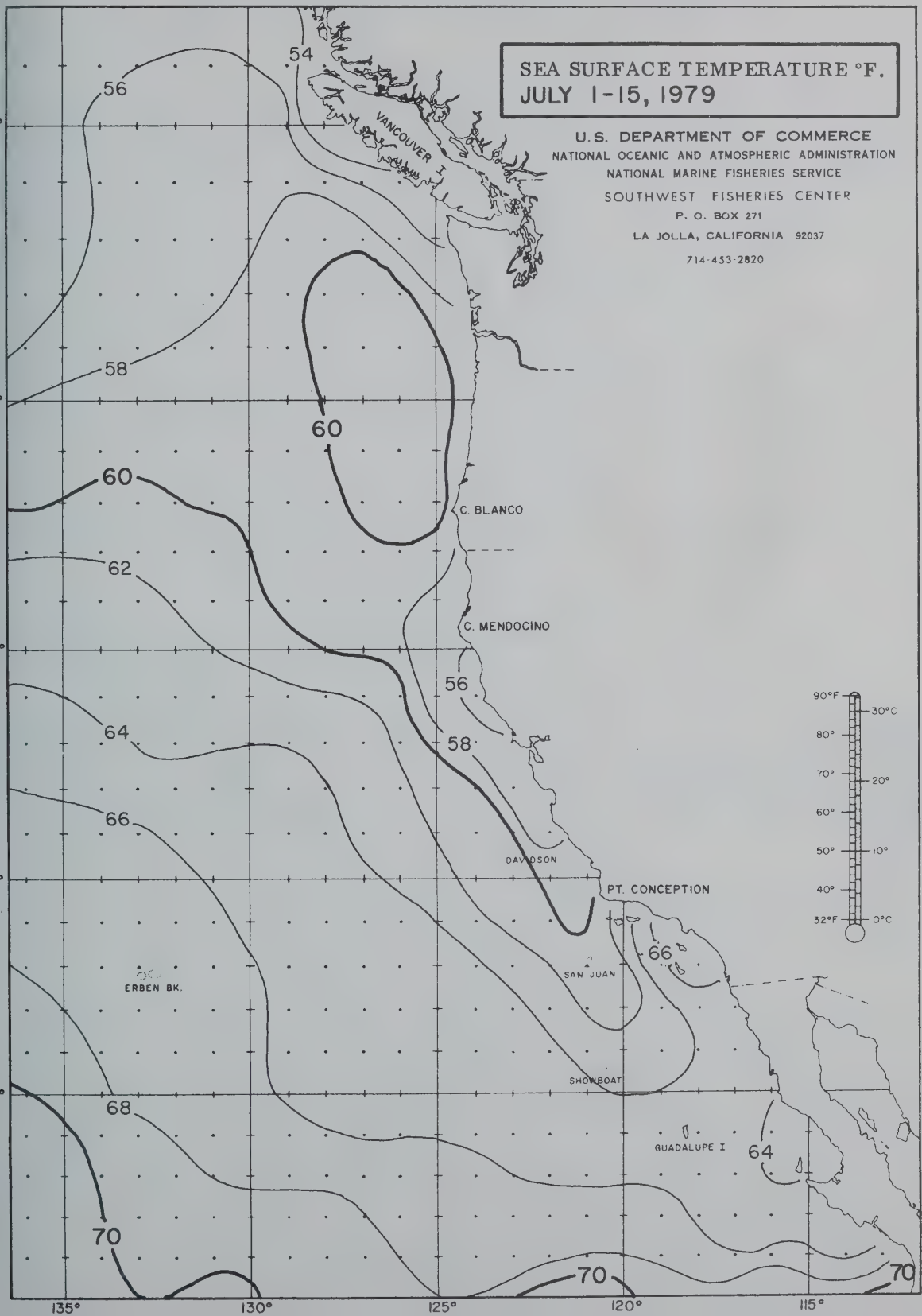

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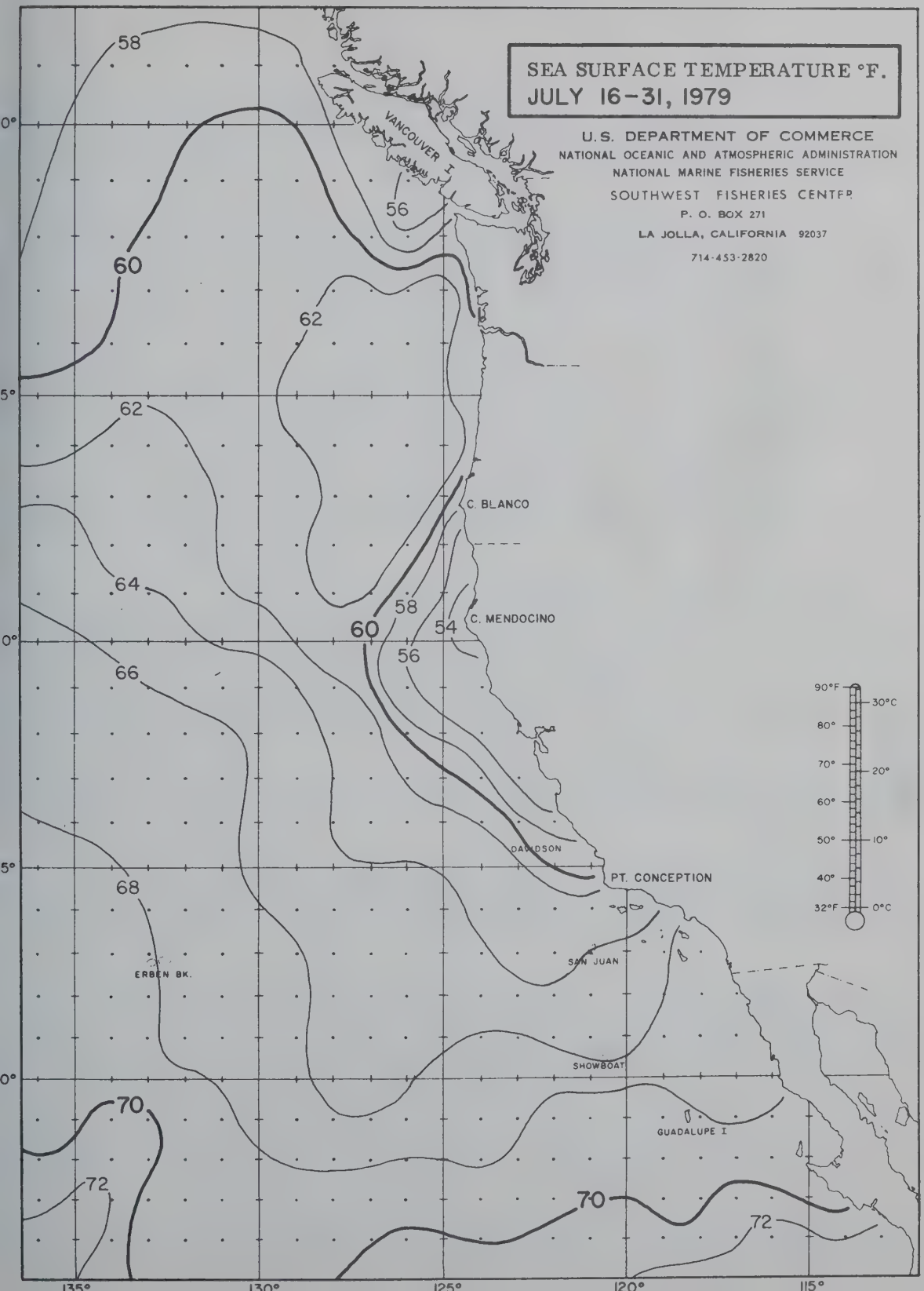

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NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL MARINE FISHERIES SERVICE
Southwest Fisheries Center
La Jolla, California 92038

Bulletin No. 79-2

1979 ALBACORE SEASON OFF TO LATE, SLOW START

e U.S. albacore fishery is late and slow in starting in 1979. Only a limited number of relatively small s have been reported thus far from coastal waters between Guadalupe Island to Coos Bay, Oregon. There have o catches reported from waters north of Coos Bay. Vessels fishing 300 to 800 miles off southern and central rnia, however, had some days of fair to good catches in June and early July. In general, the amount of fish ng effort has been reduced this season due to rough seas and the reluctance of fishermen to search for fish, there are reports of catches, because of increased fuel costs.

st of the early season albacore scouting has been made by jigboats chartered to the American Fishermen's rch Foundation (AFRF). This organization of albacore fishermen and canners chartered four commercial boats duct early season surveys and have chartered another jigboat to scout for albacore in the Pacific Northwest the season. In addition, the AFRF has hired a baitboat to conduct albacore tagging operations between Baja ntral California during the season. Fishing results from the chartered jigboats are reported to the Western at Owner's office daily on SSB frequencies 12C (12432.3 kHz), 8A (8291.1 kHz) or 6B (6221.6 kHz) at 9:30 a.m. ith initial radio contact usually being made on SSB frequency 12C.

e Betty H. and Veracruz, the first pair of AFRF chartered boats to leave port, departed San Diego on May 26 outed offshore waters out to 950 miles between Guadalupe Island and central California. Their first catch of bacore was made approximately 250 miles west of San Diego on May 29. These boats continued westward but did tch any more albacore until June 4 when they were approximately 800 miles west of Pt. Conception, about 120 northwest of Erben Bank. Scores through the first half of June ranged from 0-65 albacore per day per boat the vessels fished between 32°-37°N latitude, 134°-138°W longitude. Surface water temperatures were mostly .5°F (17.2°-18.1°C) and the albacore were predominantly 5-6 pounds (2.3 - 2.7 kg) and 10-12 pounds (4.5 - 5.5 kg). the last half of June, the Betty H. scouted closer to shore between central California and the San Juan Sea- - Cortez Bank area but caught no albacore. The Veracruz remained offshore and reported scores of 521 and 229 re on June 22 and 23, respectively, north of Erben Bank. When the Veracruz left the Erben Bank vicinity, s decreased and no catches were made between Erben Bank and San Diego in late June. The Betty H. returned to ego in late June and the Veracruz on July 1.

e second pair of chartered boats, Sea Chase and Ocean Harvester, left from San Diego and Eureka, respectively, the third week of June. The Sea Chase, which completed charter operations on July 12, operated in the upe Island - Jasper Seamount - San Juan Seamount area. Only four albacore were caught during the charter period. ptain of the Sea Chase reported that water temperature, color and amount of food appeared favorable for albacore at except for about 3 days, high winds and rough seas severely hampered fishing efforts. The Ocean Harvester l from San Francisco to the Columbia River and reported catches on 3 days; 6 fish near the southern edge of ckson Seamount off Cape Blanco on June 30, two fish about 60 miles WSW Coos Bay on July 8, and five fish in rda Seavalley area on July 15. The Ocean Harvester also reported that signs appeared good for albacore, but evere weather conditions restricted fishing effort and forced the vessel into port for several days. The Harvester will complete its charter operations during the third week of July.

e Seawind, which has been chartered to fish off the Pacific Northwest during the albacore season, left Moss g, California on July 1 and fished southward off Morro Bay before heading north. Small and sporatic catches fish a day were made from south of the Davidson Seamount to approximately 200 miles west of Point Arena.

ile the AFRF-chartered boats have been scouting for albacore in wide-ranging locations, other commercial boats lso been looking for albacore. However, as with the chartered boats, these vessels have found fair catches of fish in the area north of Erben Bank in early July and only small catches from late June to mid-July north- of Erben Bank, southeast of Guadalupe Island, the "dumping grounds" - San Juan Seamount area off San Diego, the son Seamount vicinity off central California, and 100-250 miles west of Point Arena. The best catch reported e nearshore waters was 75 fish off Point Arena on July 10 and 100 fish, 250 miles west of Cape Mendocino in ly. Most of the catches nearshore have been on albacore of 11-13 pounds (5.0 - 5.9 kg).

e sea surface temperatures (SST) from July 1-15 (see chart) were 2°-4°F (1.1°-2.2°C) greater than SST's off .S. West Coast during the last half of June. Over a large region between the coast and 135°W the rate of SST ase in July was above normal. West of the Davidson Seamount, between 124°W and 128°W, and along the coast from Mendocino to 45°N, SST's were more than 2°F (1.1°C) above normal. South of Cape Mendocino to Point Conception, al upwelling and wind mixing were persistent enough during most of the period to keep SST's at near normal values. were 1°-2°F (0.6-1.1°C) above normal from 100 to 200 miles southwest of Vancouver Island where the 58°F (14.4°C) 0°F (15.6°C) isotherms bulge northward into the Gulf of Alaska. High pressure systems and weaker than usual er fronts have contributed to maintaining above normal SST's of the U.S. northwest coast. South of a line from Conception to Showboat, SST's have been slightly below normal. During the last half of July a normal rate of ng is expected with SST's remaining above normal inshore north of 40°N and offshore from 30°N to 40°N. In- south of 40°N, SST's may be slightly below normal by the end of July due to continuing strong wind mixing and al upwelling.

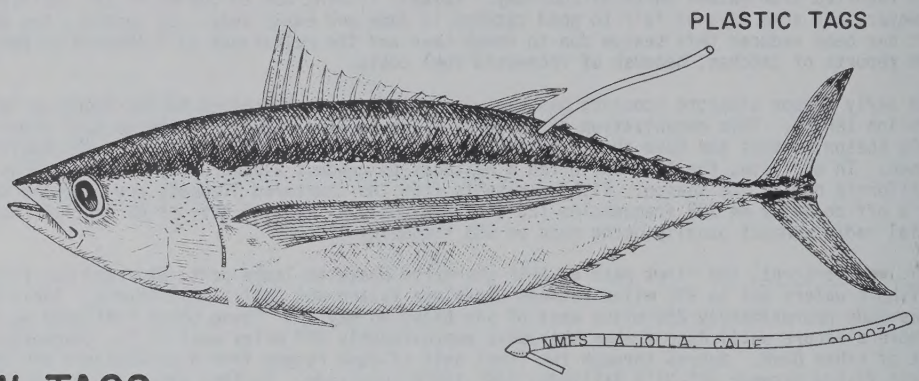
e National Weather Service Long Range Prediction Group has indicated that the subtropical high pressure system northerly winds and seas will dominate the weather along the U.S. West Coast south of 45°N. Most of the weather s with heavy winds and seas will have tracks across the Gulf of Alaska into northern British Columbia. The g winds which have prevailed from Cape Mendocino to Pt. Conception should decrease gradually through the last f July.

Staff, Albacore Fisheries Program
R. Michael Laurs, Leader

17, 1979

$ REWARD $

FOR ALBACORE TUNA TAGS



YELLOW TAGS

THE NATIONAL MARINE FISHERIES SERVICE WILL PAY $ 2.00 FOR EACH YELLOW TAG RECOVERED. (NO NEED TO RETURN FISH)

RECORD:

- WHERE
- WHEN
- HOW

} *FISH WAS CAUGHT*

- LENGTH OF FISH (TIP OF LOWER JAW TO FORK OF TAIL)

FORWARD TO NMFS ADDRESS ON TAG

RED TAGS

THE NATIONAL MARINE FISHERIES SERVICE WILL PAY $ 50.00 FOR EACH RED TAG & FISH RETURNED. (FISH WITH TAG INTACT MUST BE RETURNE

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NOTIFY NMFS P.O. BOX 271, LA JOLLA, CA. TEL. (714) 453-2820

THE AMERICAN FISHERMEN'S RESEARCH FOUNDATION WILL AWARD CASH PRIZES FOR YELLOW & RED TAG NUMBERS DRAWN IN AN ANNUAL LOTTERY.

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Bulletin No. 79-3

ALBACORE FISHING IMPROVED OFF SOUTHERN CALIFORNIA AND OREGON

lbacore fishing improved off southern California and good catches were reported by a few boats working between t, Oregon and the Columbia River beginning the last weekend of July. Two locations off southern California ed much of the catches in the last half of July. Although fishing was spotty and scattered, the most consistent f catches has been 150-200 miles south-southwest to west of San Diego where boats have averaged 12-50 fish/day/ ince July 19. Top scores on some days were over 100 fish for both jigboats and baitboats on albacore averaging nds (10 kg). The National Ocean Survey's research vessel, David Starr Jordan, with National Marine Fisheries e's scientists from La Jolla, California onboard, was also in this area in late July. These scientists noted urface water conditions were good for albacore fishing, but that the Jordan caught albacore only when the warm e waters reached depths of greater than 100 feet. They also indicated that these conditions occurred only in

he second area off California to produce some catches was near the 1908 fathom spot off Point Conception. on 14-30 pound (6.4 - 13.6 kg) fish were generally 3-60 fish a day in the fourth week of July, but fishing so spotty and by the end of July many of the boats had moved out of this vicinity.

lsewhere, catches were reported from west of the Davidson Seamount, off San Francisco and west of Eureka; however, s were generally small, fishing spotty, and boats were more than 100 miles offshore. A few boats recorded good s of 100-250 fish west of the "dumping grounds" off the Columbia River on July 29-30 and fishing in this area promising for August. A few days earlier, a sportboat and one of the American Fishermen's Research Foundation's chartered boats had also caught albacore in this area.

wo of the three AFRF chartered boats scouted for albacore in the Pacific Northwest during July. The Ocean ter completed its charter on July 19 and reported 5 and 11 fish scores between Cape Blanco and Heceta Head on 6 and 17, respectively. Meanwhile, the second chartered boat, Seawind, caught 1 fish a day during July 16-18 50 miles west of Cape Blanco to the Columbia River before entering Astoria on July 20. The Seawind returned to shing grounds on July 25 and made daily catches of 18-39 fish from July 25-27, 80-120 miles offshore from the ia River to Heceta Head. On July 28, the Seawind caught 86 albacore west of Heceta Head; but as the boat worked ard to Coos Bay and back to 240 miles west of Heceta Head, catches were 15-46 fish a day. Albacore caught by artered boats averaged 13-14 pounds (5.9 - 6.4 kg) and surface water temperatures where the boats fished were F (17.2 - 17.8°C). The third AFRF chartered boat, Linda, continued to fish off southern California and has 44 albacore. The Linda is currently working with the Jordan on sonic tracking studies on albacore.

an Diego sportboats on day trips had some fishing success in the third week of July, but only small catches were n a few days in the fourth week. Sportboats on 2-3 day albacore trips, however, have reported some good days -400 fish during the last half of July.

uring the middle of July, strong winds and rough seas curtailed fishing activity and scouting from Cape Blanco nt Conception. However, fishing weather gradually improved during the last 10 days in this coastal region. btropical high pressure system pushed in over Washington and Vancouver during the last half of July causing r-than-normal winds and considerable surface heating north of Cape Blanco. Surface winds and seas were lighter uring the first half of July off the coast of southern California also.

he sea surface temperatures (SST) from July 15-31 (see chart) were 2-4°F (1.1 - 2.2°C) above normal along the north of 42°N and westward to 135°W. In this region, the eastern Pacific high pressure system had light winds of 42°N most of the time. Weather fronts usually moved northeast across British Columbia in July with only , trailing fronts crossing the Washington coast. Because surface winds remained quite strong off the coast of rn California until late in July, SST's continued to cool at greater-than-normal rates. As a result, SST's han 60°F (15.6°C) along the coast (see chart) were 1-2°F (0.6 - 1.1°C) below normal. South of the Davidson nt and out to 123°W, SST's were 2°F (1.1°C) above normal because the high pressure system had shifted north- nd surface winds were lighter than during the first half of July.

ased on information received from the National Weather Service Long Range Prediction Group, the general SST g trend north of 40°N and south of 35°N should continue. There will be some periods of strong winds and rough outh of Cape Blanco, but the high pressure system (ridge) is expected to move southward and inland by mid- , and fishing weather should improve off northern California and Oregon. No change in fishing weather from st 10 days in July is expected off southern California during the first half of August. SST's will continue 1° to 2°F below normal along the coast from 41°N to 37°N out to 128°W at 40°N. Elsewhere, SST's will be above normal over the fishing grounds.

Staff, Albacore Fishery Investigations
R. Michael Laurs, Leader

1, 1979

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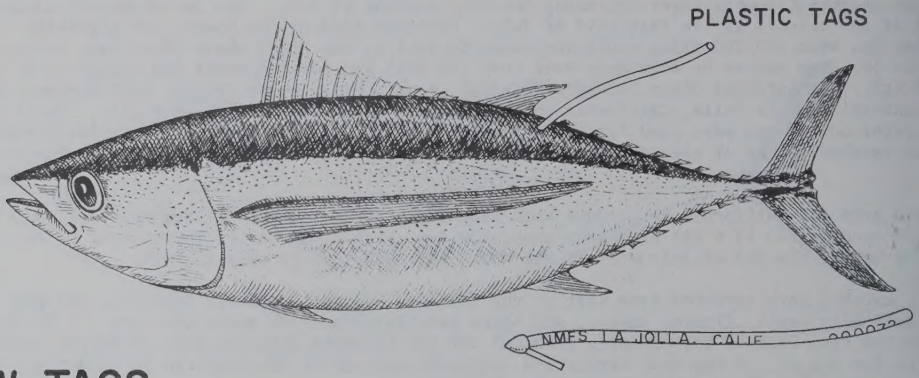

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